

LX (IT) Series Single Phase UPS 1KVA~3KVA PF0.9 (Opt. PF1)



About the LX (IT) Series

Perpetual Power's LX (IT) Series is a high-efficiency, single-phase UPS solution designed specifically for critical power applications across diverse sectors. Delivering up to 90% active power output and achieving efficiency as high as 99.09%, the LX IT Series offers reliable, cost-effective performance with minimal energy loss. Built with a focus on advanced architecture, the LX (IT) Series combines Active Battery Management (ABM) technology and a user-friendly design to ensure superior reliability, easy operation, and extended backup performance. Whether used in IT infrastructure, medical systems, telecom, or other mission-critical environments, the LX IT Series stands out for its exceptional quality, smart energy management, and long-lasting power delivery.

Why Choose the LX (IT) Series?

Double Benchmark Designed Power System

Engineered to meet dual performance and reliability standards, ensuring stable and consistent power delivery.

Reliable and Safe Protection

Built-in safeguards to protect sensitive equipment from power disturbances, surges, and faults.

Best in Economical

Premium performance at a highly competitive cost-ideal for budget-conscious critical applications.

ABM (Advanced Battery Management) Technology

Extends battery life and ensures optimal charging with intelligent monitoring and control.

Inbuilt Output Isolation Transformer

Provides enhanced safety, electrical isolation, and clean power output, even in harsh environments.

Benchmark Design – LX (IT) Series

The LX (IT) Series from Perpetual Power is a benchmark in design and adaptability, meticulously engineered to perform reliably across a wide range of environments and applications. With a pedometric and compact architecture, the LX Series ensures efficient internal layout and space-saving installation. It features a user-centric LCD + LED display, intuitive multi-functional control keys, and a friendly Human-Machine Interface (HMI) for smooth operation and monitoring. Equipped with advanced multi-platform communication interfaces—including RS232, USB, and SNMP—the system offers seamless integration with modern IT and industrial infrastructure. Strategically placed air vents on the front and side panels provide optimal cooling, enhancing thermal performance and system longevity.



Complete system
superior by
Microcontroller



Display LCD+LED

UPSON Display
View



HMI Technology



**Controlled FAN
by
Microcontroller**



**Smart Air Vent
Cabinet**

Tremendous Benefits – LX (IT) Series

The LX IT Series from *Perpetual Power* offers a wide range of benefits, making it an ideal choice for critical power protection across industries. First and foremost, it provides reliable backup during utility power failures, protecting sensitive equipment such as computers, servers, and networking gear from sudden shutdowns, voltage fluctuations, and potential damage—issues that are increasingly common in today's power environments. With its high efficiency, advanced safety features, and ABM (Advanced Battery Management) technology, the LX IT Series not only ensures uninterrupted operation but also extends battery life and reduces maintenance costs. Designed to deliver high-quality performance at a competitive price, the LX IT Series represents one of the most economical and dependable UPS solutions in its class—ideal for IT, telecom, medical, and industrial applications.

Key Features – LX (IT) Series Online UPS

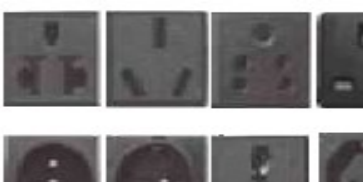
- High-Frequency Online Double Conversion Technology Provides true isolation and uninterrupted, clean power delivery.
- DSP (Digital Signal Processor) Control Technology Enables real-time system control with enhanced accuracy and performance.
- Active Power Factor Correction Input power factor up to 0.99, ensuring better energy efficiency.
- Output Power Factor 0.9 – 1.0 Delivers more usable power for connected equipment.
- Wide Input Voltage Range: 110-300VAC Operates effectively under varying utility conditions.
- Input Frequency Range: 40-70 Hz Suitable for fluctuating frequency environments.
- Auto Frequency Sensing Automatically detects and adjusts to 50/60 Hz power sources.
- Frequency Conversion Function Supports 50Hz/60Hz conversion as needed.
- Cold Start Capability Allows the UPS to start directly on battery without utility power.
- Rear Ventilation Design & Variable Speed Fan Enhances cooling efficiency and reduces noise.
- Advanced Battery Management (ABM) Prolongs battery life and improves backup performance.
- Quick & Stable Charging Restores up to 90% battery capacity in 4 hours (standard models).
- Linear Derated at Low Input Voltage Minimizes unnecessary battery discharges and extends battery service life.
- Settable Delayed Start on Mains Recovery Reduces load impact on the generator or grid upon power restoration.
- LCD Control Panel with Multi-Function Settings Easily configures output voltage, EOD (End of Discharge), auto-start, bypass mode, ECO mode, and frequency conversion mode.
- Multiple Communication Interfaces Standard: RS232 Optional: USB, RS485, SNMP, AS400 dry contacts, EPO function, SMS alarms
- Optional 12A High Current Charger (Available for 2-3kVA models only)

Rear Panel

- AC input socket
- Battery connector (optional)
- Fan (optional)
- USB (optional)
- EPO (optional)
- RS232
- Intelligent slot
- Output sockets



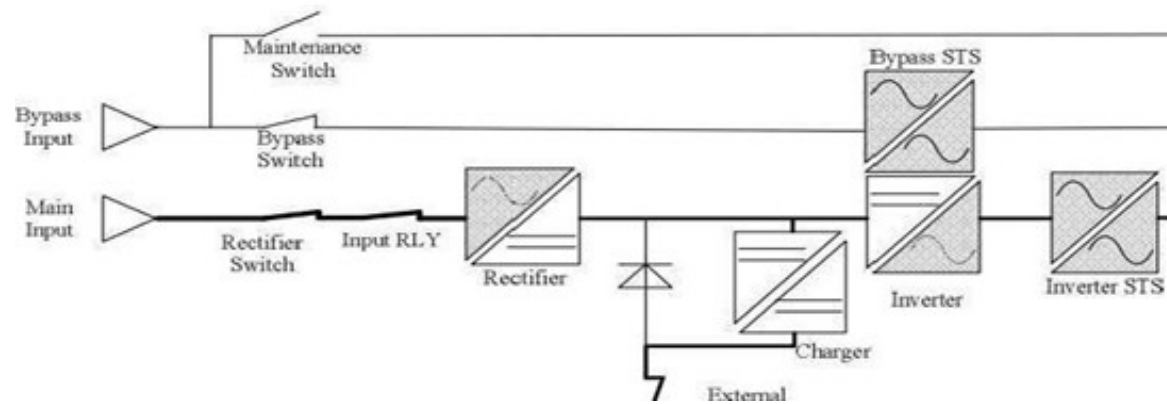
International Market



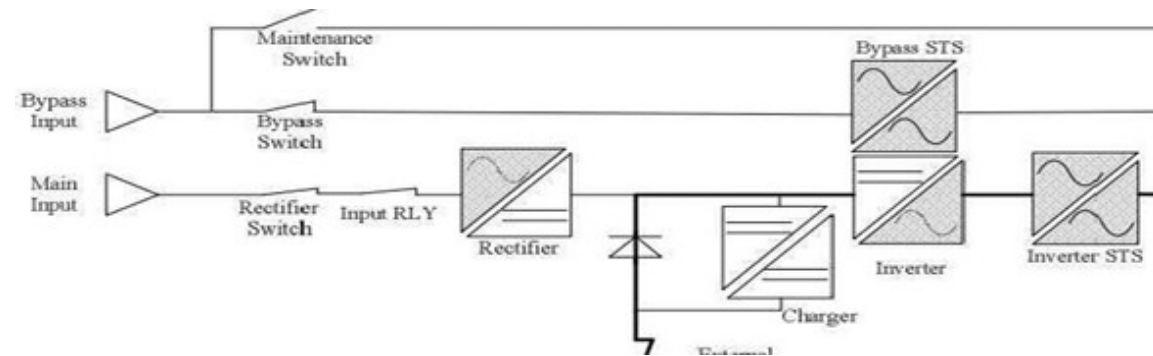
Output Isolation Transformer VIEW



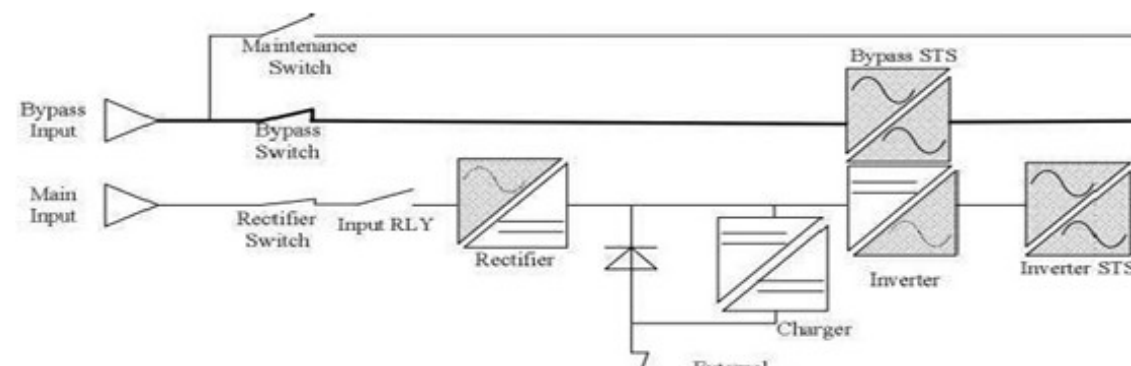
LX(IT) Series-Operation Mode feature- Schematic Diagram



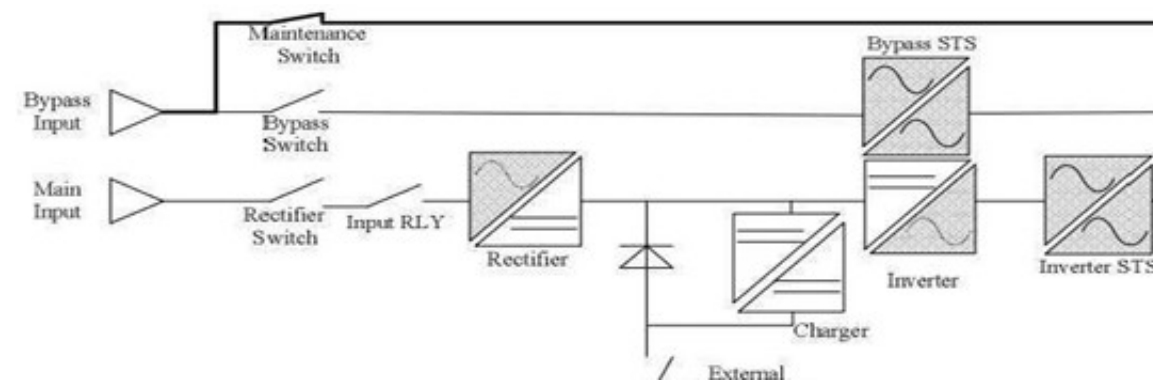
Mains Inverter Mode



Battery Mode

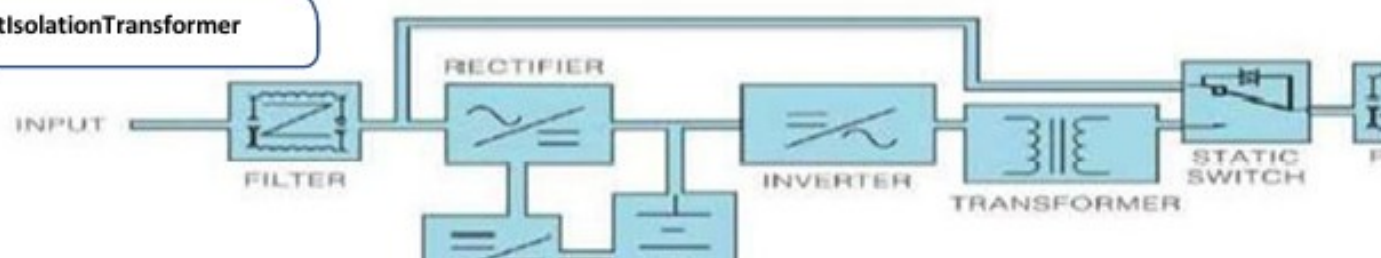


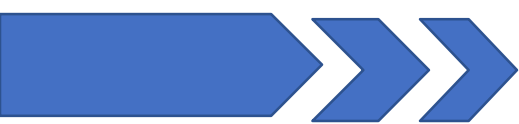
Bypass Mode (the inverter has been shut down)



Maintenance Mode

Schm.OutputIsolationTransformer





Output Isolation Transfer Base UPS

MOEL	LXIT11E		LXIT12E		LXIT13E	
CAPACITY-Load	1KVA=(900Watt/1000Watt)		2KVA=(1800Watt/2000Watt)		3KVA=(2700Watt/3000Watt)	
INPUT						
Phase	Single phase with ground					
Rated Voltage	208/220/230/240Vac					
Voltage Range	110~176 Vac(Linear de ratings between 50%and100%load);176~280(no De ratings);280~300Vac(derating50%)					
Frequency	40~70Hz(auto-sensing)					
Power Factor	≥0.99@Nominal Voltage (100%load)					
Bypass Voltage range	-25%~+15%(settable)					
OUTPUT						
Voltage Range	208/220/230/ Vac (settable LCD)					
Voltage Regulation	±1%					
Frequency-synchronized range	45~55Hzor55~65Hz					
Frequency-Battery mode	50/60Hz±0.1Hz					
Waveform	Sinusoidal					
Power Factor	0.9/1.0					
Total harmonic distortion(THDv)	≤2%(linear Load),≤5%(non-liner Load)					
Crest factor	03:01					
Overload	105%~125%for1min,125%-150%for30s,>150%for300ms					
BATTERIE						
Features	External		External		External	
Type	Sealed lead acid maintenance free battery					
Dc Voltage	12VDCx3,(36VDC)		12VDCx8(96VDC)		12VDCx8(96VDC)	
Charging Current	6A/12A(set)		6A/12A(set)		6A/12A(set)	
Charging Output VDC	40.7±0.6		108.4±1.6		108.4±1.6	
Typical Recharge time	Standard model;90% capacity restored in 3hours;Long run model;depend on the capacity of battery					
SYSTEM						
Efficiency	≥90%(Mains mode)		≥91%(Mains mode)		≥92%(Mains mode)	
	≥85%(Battery mode)		≥86%(Battery mode)		≥87%(Battery mode)	
	≥95%(ECO mode)		≥96%(ECO mode)		≥97%(ECO mode)	
Transfer time	Mains mode to battery mode:0 ms Inverter mode to bypass: 4ms(typical)					
Isolation transformer	Galvanized isolation transformer-Inbuilt					
EMC/Safety/Performance	EN62040-1,EN62040-2,EN61000-3-2,EN61000-3-3,IEC61000-4-2,IEC61000-4-3,IEC61000-4-4,IEC61000-4-5,IEC61000-4-6,IEC61000-4-8,IEC61000-4-11,IEC61000-2-2,IEC62040-2,IEC62040-1,IEC62040-3					
Quality/Security	ISO9001:2015					
DISPLAYCONTROL						
Display	LCD+LED					
Settable via LCD	Output voltage, EOD, auto-start, bypass mode, ECO mode and frequency conversion mode					
Control Technology	DSP(Digital Signal processors)					
MANAGEMENT-CONTROLANDCOMMUNICIONS						
Charger Add.	12A charger					
Output terminal	Indian standard Type D (3pin)grounded and (Type G,M,N,O,for international market standard)					
Protections	Short-circuit, overload, over temperature, battery discharge protection and fan testing protection, Surge protection(for network/fax/modem)					
SMARTRS-232USB/RS-485	SupportsWindows2000/2003/XP/Vista/2008,Windows7/8/10,LinuxandMAC					
Optional SNMP	Power Management from SNMP manager and webbrowser					
Interface	Bitrate:2400bps/Byte:8bit/Completion code:1bit					
ENVIRONMENT						
Operating humidity	0~95%RH@0~40°C(non-condensing)					
Storage temperature	-25°C~55°C(exclude batteries)					
Operating Altitude	≤1000m,above1000m,derate1%for each rising 100m					
Ingress Protection rating	IP20/IP21					
Noise level at1m	≤50dba					
PHYSICAL						
Dimensions(mm)(W×D×H)	200x342x216		192x458x534		192x458x534	
Packaged dimensions (mm)(WxDxH)	232x417x318		277x530x600		277x530x600	
Net weight(kg)	17.3		27.5		28.5	
Gross weight(kg)	25		36		38	

***Accuracy weight±200gm

**Accuracy Dimension ±20mm

Derated capacity to 70% in CUCF mode and to 90% when the voltage is adjusted to 208Vac

All Specifications are subject to change without notice

Custom-made specifications are acceptable

Our Clients



CENTRAL POLYTECHNIC COLLEGE



CUSAT



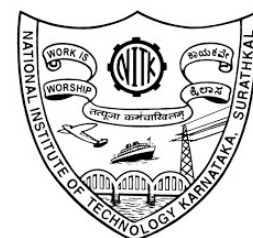
Government Engineering College



KSB CDC
KERALA STATE BACKWARD CLASSES DEVELOPMENT CORPORATION
(A Government of Kerala undertaking)

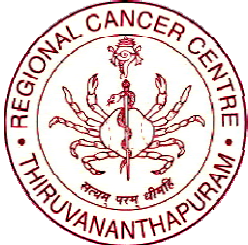


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